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By PROF. LATTIMORE,
Prosessor of Chemistry at the University of Rochester, New York.

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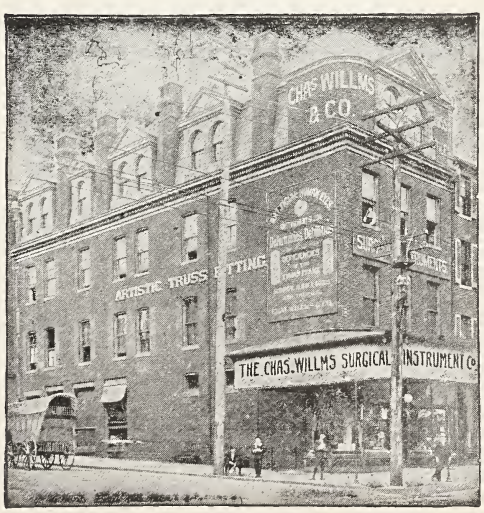

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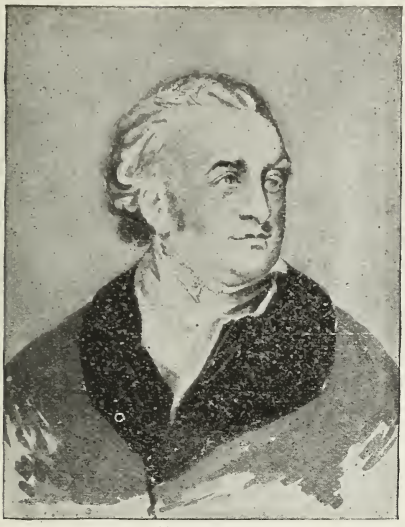

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Original Articles.

SURGERY FOR TYPHOID PERFORATIONS.

By Joseph Price, M. D.,
Philadelphia.

READ BEFORE THE PHILADELPHIA COUNTY MEDICAL SOCIETY, OCTOBER 28, 1896.

I submit the following report of cases operated on for typhoid perforation for the lessons they may convey and will discuss them from the standpoint of our more recent experience.

Case I. — Mrs. A. O., aged thirty, having several children, but without a history of miscarriages, was admitted to the hospital on October 2, 1896. She was seen by Drs. Hughes and Owens in consultation after some three weeks of illness, with a typical history of typhoid fever. Operation was performed on October 1. Symptoms of perforation were present, with well-localized attacks of peritonitis and an irregular and ill-defined tumor on the right side. Omentum and small bowel were found adherent in the region of the ileo-cecal valve. The adhesions were easily freed and two perforating ulcers, six inches apart, were found. The lower one, situated a few inches from the valve, was large, irregular and necrotic ; the second one was higher up in the bowel, about one-half inch in length, well defined and less healthy in appearance.

A puddle of filthy fluid was found about the perforations and the omentum and appendix were also involved in the adhesions. The infected portions of the omentum and appendix were removed. The holes in the ileum were trimmed and sutured and an irrigation toilet was followed by both glass and gauze drainage. The mesenteric and retroperitoneal lymphatics were generally enlarged and easily recognized by touch and sight. Recovery ensued without a hitch.

Case II.—Mrs. B. K., a married woman, aged twenty-six, with two children and a history of one miscarriage, was admitted to the hospital on June 4, 1896. She had a rapid pulse and high temperature and appeared to be in a decided septic condition. Peritonitis was quite general and alarming emaciation had taken place apparently as a result of some lung trouble. Section was made on June 5. General adhesions were found in the region of the ileum and right groin. When all adhesions had been freed, a large, ragged perforation was found in the ileum, with circumscribed accumulation of bowel contents. The perforation was trimmed and sutured. After an irrigation toilet, glass and gauze drainage were provided. Recovery followed. For two days following the operation the pulse remained high and feeble. The temperature also was high and this was considered rather favorable. This patient had been very ill for two weeks before admission to the hospital. The character of the ulceration was doubtful as there was tuberculous trouble in the

lungs. The closure of the fistula after suturing is rather against tubercle, as tuberculous fistula rarely close by suture.

Case III. — Mrs. R. B., a married woman, aged twenty-eight, without children and without a history of miscarriages, came under observation after three weeks of illness and treatment for typhoid fever. She was admitted to the hospital on January 5, 1895, and went into collapse soon afterward, being unconscious at the time of the operation. On January 6, section was undertaken, freeing all adhesions, stitching multiple bowel-fistula, detaching lymph from the bowel with gauze. There was a general angry peritonitis, with filthy bowel contents, and filthy inflammatory products throughout the peritoneal cavity. Gaseous distention was marked and the peritoneum had a decided fecal odor. Thorough irrigation and drainage were practiced. I never attempted to close a filthier peritoneal cavity than this, either ante-mortem or post-mortem. Recovery followed. There were present at the operation Dr. N. Fred. Essig of Spokane, Washington; Dr. Samuel S. Q. Robinson of the U. S. Army; Dr. Harold Bunn of California; Dr. John F. Roeder, Dr. H. S. Lewers and Dr. Garden of Philadelphia.

Notwithstanding the great progress medical and surgical science has made, typhoid fever continues to present many complex and difficult questions. It must be classed among the most grave troubles with which the profession has to deal. Little is known about the disease, other than of its more objective symptoms. There is no exactitude or certainty in its treatment, which is rarely the same by any two physicians. The treatment begins with guesses and grows into some degree of certainty only as conditions improve. I will not attempt to deal with the larger circle of facts connected with typhoid fever, but will restrict my discussion to the surgical treatment of typhoid perforation.

Again, we have a wide divergence of opinion as to the propriety or wisdom of operation. There is no very general accord of opinion as to prognosis or the definiteness and reliability of symptoms —as to reliable evidence of perforation —nor is it agreed that all these cases prove fatal.

Dr. Reginald H. Fitz of Boston has furnished valuable data as the result of a study of the work of the earlier investigators as to the fatality of typhoid perforation. Louis, Chomel and Jenner have reported numerous cases of typhoid perforation, but none of recovery. Tweedle says: "Intestinal perforation is always fatal, generally within thirty-six hours." Some more recent authorities make more favorable reports, others agreeing with the earlier authorities as to the almost certain fatality.

Griesinger holds that there is a possibility of the healing of a perforation and of recovery "never in cases of general peritonitis, only when the inflammation is wholly circumscribed. The rare exceptions are hardly worth considering in connection with the prognosis, which is to be regarded as almost fatal when the symptoms of perforation are distinct, and as absolutely fatal when gas is present over the liver." Murchison, who has contributed much that is valuable to the literature of the subject, says that "rare cases are met with where recovery ensues after all the symptoms of peritonitis from perforation." Dr. Reeves reports that: "I have seen in five instances all the symptoms which announce and follow perforation of the bowels, yet the patients recovered." Dr. Loomis, in discussing the subject, says: I do not remember to have seen a single recovery after there were unmistakable evidences of intestinal perforation. Recovery from a local peritonitis complicating typhoid fever is not uncommon, but when the characteristic symptoms of intestinal perforation are present, in my experience, a fatal issue soon follows." So we have the weight of authority on the side of almost certain fatality.

In the reported cases due allowance must be made for errors of diagnosis. In many of these cases the diagnosis was not made until post-mortem examination revealed the characteristic typhoid lesions. Had recovery taken place,

much doubt would have remained in the mind of the operator as to the real nature of the perforation. We know that typhoid perforations are the most common variety of perforations and the perforation is usually in the ileum.

As to the mortality in cases of the perforation of the bowel, Dr. Osler gives recent statistics: "In 114 cases of the 2000 Munich autopsies (5.7 per cent.) and in fourteen instances in my series, the intestine was perforated and death caused by peritonitis. The perforation may occur in ulcers, from which the sloughs have already separated, or it may be directly due to the extension of a necrosis through all the coats. In only a few cases is the perforation at the bottom of a clean, thin-walled ulcer. In one instance the perforation occurred two weeks after the temperature had become normal. The sloughs were, as a rule, adherent about the site of the perforation. A majority of the cases were in small, deep ulcers. There may be two or even three perforations. The orifice is usually within the last foot of the ileum. In only one of my cases was it distant eighteen inches. Peritonitis was present in every instance.

Hemorrhage from the bowels occurred in ninety-nine of the Munich cases and in nine of my series. The bleeding seems to result directly from the separation of the sloughs. I was not able in any instance to find the bleeding vessel. In one case only a single patch had sloughed and a firm clot was adherent to it. The bleeding may also come from the soft, swollen edges of the patch. Peritonitis without perforation may also occur by extension from the ulcer, or, occasionally, by rupture of a softened mesenteric gland. It was present in 2.2 per cent. of the Munich autopsies.

The question is direct, What chances does surgery offer? The one and only chance left. We know the almost inevitable sequel in one case and something of the possibilities in the other. The one means death, the other gives a chance of recovery. The error, to put it mildly, consists in abandoning these cases as absolutely hopeless, when there is yet one last resort—surgery—which furnishes precedents of encouraging success. I am not venturing upon entirely new ground. Dr. James C. Wilson, the honored President of this Society, a clinician of wide experience, stands among the first, if not the first, to advocate, in clear, unequivocal language, surgical dealing in these cases. Dr. Hunter McGuire of Richmond, Va., a worthy supporter of the fame of the old school of surgeons, recommends the tying of vessels to control hemorrhage from ulcers in typhoid fever. He recognizes that too many are lost from this cause and suggests an original and ingenious method of suturing to control the hemorrhage and avoid necrosis. We are slow in following the lead these men take, slow and hesitating in adopting their urgent suggestions, in coming down from our theoretical lofty height. All our surgical procedures have made their way in the face of relentless criticism and opposition. Surgical interference, in cases of typhoid perforation, has not proved an exception. Largely, the difficulty lies in timidity and oversensitiveness as to professional repute. The protective character of adhesions are often misleading, tending to lull apprehension as to immediate existing risks to life. The condition is too frequently classified for non-interference—left to the processes of nature—when parts are weakened and poisoned beyond the kindly healing and remedial processes of nature. We find, occasionally, recorded deaths from spontaneous perforation due to chronic local peritonitis. The history may be that of localized attacks of peritonitis—with doubtful evidence of perforation—the localized attack resulting simply in adhesions about the ulcer. If the adhesions are well-formed, the escape of gas and bowel contents will be limited when perforation occurs.

The patching or fortification by adhesive and protective peritonitis, avoiding acute general peritonitis and sepsis, gives us the most favorable class of cases for surgery. Localized peritonitis, with adhesions, with or without perforation, around an ulcer, with sufficient

adhesive and inflammatory product to form a small tumor, is quite easily recognizable in an emaciated patient. An eminent surgeon says, in connection with these cases, that which cannot be accepted as safe dictum :

"Surgeons are not justified in performing laparotomy for the suturing of perforated typhoid ulcers, if circumscribed peritonitis of an adhesive or protective character exist, or is in process of development."

The trouble, as with all intestinal affections, is a hidden one, not one directly addressed to our vision. We cannot determine with any large degree of certainty, even from a few marked objective signs, the extent of the protective character of the adhesions, nor determine anything certain as to the character or extent of the process of development. We know the sequence in the majority of these cases where there is no interference. Perforations or fistulae due to ulceration and sloughing rarely close. Almost all such ulcers are surrounded by adhesions, with pus, bowel contents, fistulae and fistulous openings. Complications become general, keeping the patient in a miserable condition ; emaciated and anxious, with a rapid pulse, cold, clammy and greatly wasted. Fistulae of viscera, due to incision or surgery, commonly closes spontaneously. Not so, however, when due to sloughing. Unfortunately, we are not always aided by the clinical history in our diagnosis. We are directed or guided largely by the patient's general condition, the peritonitis or the small and ill-defined tumor.

There is but little dificulty in settling the fact that the patient is dying of some intra-peritoneal lesion. Errors are rarely made in opening the abdomen. Suture methods for repair, after careful trimming of the ulceration, give the most pleasing results. Excisions or resections have nothing to recommend them. The open treatment, when the conditions are desperate, and sepsis and bowel distention very marked, favors peritoneal and bowel drainage of all contents. An abundance of gauze placed about the fistula in the shape of a square coffer-dam favors simple drainage and avoids contamination. The large mortality has been largely due to clumsy and imperfect work. Everything within the abdomen is intolerant of bungling manipulation. The surgery is not to be gone at with that awkwardness with which a man would try to put his five fingers in a glove with four. The delicacy of the condition of the parts, which the very nature of the disease creates, requires in the surgeon the use of fingers delicate and sensitive of touch and deft in use. The repair of perforations, commonly single, rarely multiple, is easy and should be rapid. There may be some delay in the seeking and finding the point of perforation, but the well-defined nature of the pathological condition at that point is easily recognized by fingers familiar with normal intra-peritoneal conditions. The deviation from the normal can be instantly recognized when the fingers are passed through the viscera without exposure. The cluster of adhesions, omentum and bowel about the perforation are easily freed. The cleansing, local and general toilet, are of great importance. Rarely do we find distention associated with perforations, except in the delayed cases, on the third or fourth day after perforation.

In delayed cases the mass is well marked ; paresis of the bowel with over-distention is prominent. The characteristic fecal odor is recognized at once upon opening the abdomen. This is most marked in the acute cases in those dying soon after perforation. If the adhesions are well formed about the perforation, a fecal odor is rarely present. When patients are under observation, the diagnosis made early, the disease running a uniform course with a definite train of symptoms, the characteristic morning remissions and evening exacerbations, and about the third week a copious intestinal hemorrhage takes place with the patient sinking into fatal collapse, with a quick pulse, sub-normal temperature, the symptoms admit of but one interpretation, and point to but one possible source of relief.

In the very nature of things, from the

very character of the trouble and the parts attacked, the mortality will always be large; but some can be saved. The stimulus of anesthesia increases the force of the pulse, the patient's respirations deep, and at the completion of many of these operations the patient's general condition is often better than before the operation. An irrigation toilet, aside from having great value for cleansing, is a stimulant to the solar plexus and favors reaction.

The same principles apply in these cases of typhoid perforating ulcers that apply in cases of general septic or purulent peritonitis and to stab wounds and gun-shot wounds. The words of Dr. D. Hayes Agnew, who, in his day, was the sovereign spirit of American surgery as applied by him to gun-shot wounds of the abdomen, applies with equal appropriateness to typhoid perforations.

He says: "I want to place myself upon record, for I have very strong convictions with regard to laparotomy. They amount to this: If there is a reasonable degree of evidence that there is a penetrating abdominal wound, especially if a shot-wound, it is our duty to open the abdomen, to make an exploratory incision. We are not to be deterred by the possibility of some legal technicality, if the case should come into court. We are to do our duty without reference to consequences."

I will quote extensively from Dr. J. C. Wilson, for nothing better has been said upon the subject:

"I take it for granted that almost every case of free extravasation of intestinal contents, however small in amount, into the peritoneal cavity terminates fatally. There is little reason to believe that any case of this kind recovers. It is important to note that the cases of peritonitis in enteric fever in which recovery is possible can be clinically distinguished from those which will terminate rapidly in death. The clinical picture of the two conditions is almost as distinct as are the pathological lesions. Where there is extravasation of the intestinal contents into the peritoneal cavity, the collapse is like that caused by the escape of an amount of foreign matter, the result of a perforating gun-shot wound of the intestine. The proposition which I submit for discussion arises directly from a consideration of the matter in this way. Until within a few years, no surgeon realized the possibility of treating cases of gun-shot injury of the abdomen with perforation of the intestine and the escape of blood and fecal matter by the operation of laparotomy, washing out the peritoneal cavity, excising bruised and lacerated portions of the intestine, and bringing the parts together by suture. Yet this is now the recognized procedure in such cases, and has been of late practiced in many instances with success in cases that, under the old plan of opium and expectancy, would have inevitably perished.

"Are we ready to adopt the same measure in perforation of the intestine with similar conditions as regards the peritoneal cavity, and a like helplessness as regards cure by opium and expectancy in our cases of enteric fever? Recognizing the two groups of cases I have described, and being, as we are, able to refer almost all cases to either one or the other of them within a few hours of the development of the symptoms, are we prepared to decide — and to do so with the necessary promptness — upon those operative procedures by which alone in the second group the life of the patient may be saved?

"Granted that the chances of a successful issue are heavily against you; that the patient is in the midst or at the end of a long sickness; that his tissues are in the worst state to stand the injuries of the surgeon's knife; that the lesions of the gut may be very extensive; that the vital forces are at the lowest ebb. No one yet has hesitated to perform tracheotomy in the larygeal complications of enteric fever, which require it to save life, for these reasons."

The operative treatment of purulent peritonitis has been performed many times successfully by the gynecologist in conditious scarcely less unpromising. In point of fact, the objections that may be urged against laparotomy in intestinal perforation in enteric fever are no more forcible than those which would

have been made use of at first against the same operation in gun-shot wounds of the abdomen. The courage to perform it will come of the knowledge that the only alternative is the patient's death. Dr. Wilson, with his advanced, pioneer views in this connection, does not furnish the first illustration of the physician taking the lead of the surgeon, furnishing the guiding, the impelling thought, not infrequently the courage.

About seven years ago the American Surgical Association and the Association of American Physicians discussed, at the same time and in the same building, the relative merits of surgical and non-surgical interference in appendicitis, the medical body deciding in favor of prompt operative interference, the surgeons for delay. Almost coincident with Dr. Wilson's advocacy of celiotomy for the relief of intestinal perforation in typhoid fever, Dr. Lewis S. McMurtry of Louisville, Ky., performed an operation, the subject being a physician, and found multiple perforations. He trimmed the holes, closed them with sutures, irrigated and drained, recovery following. A report of this case, with the patient present at the time, was made at the Cincinnati meeting of the American Medical Association.

There is another recorded case—that of McArdle of Dublin. The history is one of abscess and multiple perforations following an accident, occasioned by jumping from a wagon.

The accident is not a very satisfactory explanation of the trouble in this case. The evidence better supports the conclusion that the case was one of walking typhoid fever with multiple perforations. I might refer to cases in my own experience and that of others, in which the history was doubtful. A considerable number of operations for circumscribed abscess have been reported as successful. Many of these cases are quite as questionable in their history as are those for which post-mortem operation has been done or refused.

In this connection Fitz says :

" Although the reported instances of the successful results of an operation for the cure of circumscribed peritonitis in typhoid fever are comparatively few, I have been able to collect a considerable number in which recovery resulted from resolution or from the spontaneous evacuation of the inflammatory product. In seventeen cases of recovery by resolution the peritonitic attack began in the second week in one, in the third week in eight, in the fourth week in one, in the fifth week in one, and in the sixth week in two. It began at the end of the fever in one, and during convalescence in three. Recovery took place in a week in one, in two weeks in three, in three weeks in two, in four weeks in one, and in two or three months in three. The length of time necessary for recovery in the remaining cases was not stated."

It is a mistake, on the part of gynecologists and obstetricians, to apply the term typhoid fever to certain septic conditions. The sponge-tent, the curette, the sound and a variety of minor gynecological operations have been followed by septic conditions and abscesses, frequent pulse, high temperature and diarrhea — simulating typhoid fever.

Obstetricians are in the habit of reporting septic cases under the head of malaria. The recorded mortality is largely from the prolonged anesthesia of a patient already enfeebled and with a greatly weakened heart, and the great length of time taken in the operations. They will not stand prolonged anesthesia or a prolonged operation. In a large percentage of those dying after long anesthesia and operation, death is due to causes within the surgeon's control.

One of the common causes complained of is that of weak, unhealthy tissue, and the yielding of sutures. Herein lie two errors — the choice of needle and that of suture-material. The best needle is that from the woman's sewing-case—a fine, round needle, and O or OO Chinese silk.

Early diagnosis, early operation, painstaking, rapid work will save many lives.

Courage goes hand in hand with reverence for human life. There is much force in what Napoleon said to Las Casas : " As to moral courage, I have rarely met with two o'clock-in-the-morn-

ing kind. I mean unprepared courage, that which is necessary on an unexpected occasion, and which, in spite of the most unforeseen events, leaves full freedom of judgment and decision." It is two o'clock-in-the-morning courage we need — the factor that goes largely to settle the result in many surgical cases for us is the lost quarter of an hour.

THE PERFECT SURGICAL NEEDLE; WITH REMARKS ON COMMON DEFECTS IN NEEDLES.

By John B. Roberts, M. D.,
Philadelphia.

READ BEFORE THE PHILADELPHIA COUNTY MEDICAL SOCIETY, OCTOBER 28, 1896.

LITTLE attention has been given to the proper construction of the surgical needle, though it is an instrument of great importance. A perfect surgical needle should be adapted for use by the surgeon's fingers without the interposition of any other instrument; its point should emerge exactly where the operator wishes; it should quickly and easily carry the suture through the skin or other tissue and should be serviceable for sutures of silk, catgut, tendon, silkworm-gut, or wire.

The first proposition condemns as imperfect all needles that require a needle-holder. It always surprises me to see an operator encumber his fingers with a needle-holder in suturing ordinary cutaneous wounds. The explanation is probably to be found in the unsatisfactory needles often employed. The fingers are always better than any other needle-holder, unless the stitch is to be introduced at the bottom of a cavity, where the fingers cannot reach the wound. In cleft-palate operations and in vaginal surgery, needle-holders are necessary. Under nearly every other circumstance it is better to introduce the needle with the fingers.

Accuracy in directing the point of a needle, after it is buried in the tissues, and in bringing it out at the desired spot, is best attained by using a straight needle. It is difficult to ascertain the exact position of the point of a curved needle when it is once out of sight. This is attested by the frequency with which operators have been stuck by the point of a curved needle making its exit at an unexpected place. This uncertainty is lessened, but not entirely obviated, by the use of needle-holders or needle-forceps, which prevent the needle turning after its point is buried. A straight needle, guided by the fingers, is the proper means of overcoming the difficulty.

In order to fulfil the third condition, the needle must be sharp, have an eye large enough to be readily threaded with catgut and make an opening in the tough skin sufficiently large to allow the head of the needle, with the two thicknesses of catgut, to pass readily. If catgut can be used in the needle, any other suture will go through its eye.

Within recent years various forms of needles have been offered by instrument-makers, but all that I have seen are inferior to the glover's needles which I have always employed. Some so-called surgeon's needles require so much force to drive them through the skin that a needle-holder or needle-forceps must be used both to insert and withdraw them. Some have such small eyes that they cannot be threaded with catgut; others cut such a small opening in the skin that the double thickness of the suture at the eye makes it almost impossible to drag the needle through.

Non-chromicized catgut, when softened with water, is probably the most bulky suturing material that we use. Surgical needles should therefore have eyes which can be satisfactorily threaded with this suture. They will then answer well for any other.

The perfect surgical needle which I

show is only a carefully made and slightly modified glover's needle—that is to say, the needle that has for many years been found satisfactory to those who are continually sewing animal skins in the manufacture of gloves and leather articles. The requirements are practically those pertaining to suturing ordinary cutaneous wounds. I doubt if any argument would induce a workman who stitches leather gloves or furs by hand to exchange his straight needle for the needle-forceps and curved, or otherwise defective needles often seen in operating rooms.

A needle has a point, a shaft and a head. In the last is the eye. The perfect needle shown has a three-sided point, made like a trocar, and is very sharp. The sides of the slender trocar, as it may be called, must be exactly alike, so that the point will not resemble a bayonet, which has one of the sides wider than the other two. Someone, ignorant of the requisites of a surgical needle, has introduced to instrument-makers a bayonet-pointed needle. It is, in my opinion, inferior to the glover's needle.

The trocar-like point should occupy above one-third of the needle's length. The greatest diameter of the point should be near its middle. Although the end of the point should be very sharp, its three edges should not be keen, lest they cut the fingers when the operator pulls the needle through the skin.

The three-sided point gradually fades into the shaft, which must be cylindrical, not flat, and have a diameter a little less than that of the point where it is largest. The shaft then gradually tapers down towards the head, which must have a little less diameter than the thickest part of the shaft. The eye must be large and oval or rectangular ; not circular. The head, at the sides of the eye, must not be caused to bulge outwards by the drill or punch which makes the eye. Behind the eye the head must be grooved on both sides ; in the groove lies the thread, which consequently presents no shoulder to catch as the needle passes through the skin. There is a groove in front of the eye on each side to render cleansing easier and to keep it free from dried blood and dirt.

The reasons for the characteristics of this needle will be apparent if one thinks for a moment of the work that a needle is intended to perform. It must make a hole in skin, a tough, fibrous tissue. The skin is very different from the woven materials sewed by the seamstress or tailor by means of a round or cambric needle. The instrument used by the surgeon, when he wishes to puncture a subcutaneous cyst by a small opening, is a trocar. A needle should have a similar point, which should be thrust through the skin with a sudden push very much as a trocar is used. Some operators erroneously use a needle with the slow movement used in putting a pin into the end of a roller bandage.

In the second place, the opening made by the introduction of the needle must be enlarged so that the shaft of the needle and the eye containing the thread may be drawn through it easily. This point is attained by having the point increase in diameter like a pyramidal wedge. When sufficient diameter has been given to effect this object the needle tapers down. The eye, with the threaded suture, therefore requires less or very little more space in going through the skin than the thickest part of the point and glides through without catching or requiring force on the part of the operator.

To get the best service out of a needle the operator should occasionally sharpen its point on an oil-stone ; and always select a needle large enough for the work. If the skin is thin and soft, as in the eye-lids, a small needle may be used ; but when the incision to be closed is in thick skin, a comparatively large needle is required to penetrate the tissues readily and easily.

A convenient method of preventing the needle becoming unthreaded is to tie the short and long ends of the thread together at the eye by a half-knot. This is quickly done when the needle is threaded for use, and the half-knot is readily pulled out, if it be necessary to

thread the same needle again after the suture has been used up. This tie serves to bury the thread in the grooves behind the eye. If a proper relation between the size of the needle and that of the thread exists, the knot will not catch as it is drawn through the skin.

In contrast with the perfect needle, I show a series of twelve needles, all of unsatisfactory shape, most of which are extensively used at the present time. Several are curved and hence difficult to direct, whether bent only at the end or throughout their entire length. One has a beveled point like a hypodermic needle, is cylindrical except at the very ends and is wider at the eye than anywhere else. Nothing could be less well adapted to the purpose of a needle for cutaneous wounds.

Another—the Hagedorn needle—has a slender rod-like shaft, with a point sharpened like that of a knife. It is sure to go through the skin with difficulty, because it must catch where the suture makes a shoulder or ledge at the eye ; and is very likely to cut the surgeon's finger when he attempts to pull it through the skin. I believe this needle was originally advocated because it cuts a slit at right angles to the wound and the stitch, which lies in the end of the slit, tends to draw its sides together. Other needles were said to be less desirable because they had a tendency to make a wound with its long diameter parallel to the wound to be sutured. The tension of the stitch would, it was assumed, tend to draw this puncture open and afford an entrance for infection. This reasoning is merely theoretical and of no value. The thread, as a rule, nearly or quite fills up the puncture and if the needle-wounds are exposed to infective germs, the thread itself probably acts as a route by which they enter the tissues. Metallic sutures are less liable to act in this way.

One of the other needles that I dislike is cylindrical and of greater diameter at the eye than at any other part. Its unavailability is apparent. It may not have been originally intended for surgeon's use, but I bought it at an instrument - maker's. The bayonet - pointed needle I have already condemned, though it is very much better than the others. Another unsatisfactory form has a flat shaft and a point somewhat like the head of a spear. Its fault lies in the fact that its widest diameter is not in the same plane as that of the thickest part of the threaded needle, which is at the place where the suture occupies the eye of the needle.

Finally, I show three needles which have a trocar-like point similar to that which I call the perfect needle. They are, however, exceedingly bad, because the points do not make a puncture big enough to allow the shaft and eye of the needle to traverse the skin with ease. No adequate provision is made in them to dilate the wound or to have the aftercoming head of less size than the shaft of the needle.

The Origin and Spread of Contagious Diseases.—Dr. W. H. Faulds of Luzerne, Pa., records in the *Medical News* his thoughts on the origin and spread of contagious disease.

1. That non-virulent microbes exist in all parts of the habitable globe.

2. That they were made disease-producing in the case of cholera, smallpox, syphilis, diphtheria and tuberculosis, in the thickly populated centers of the Old World through overcrowding and bad hygienic conditions.

3. That the virus is always derived from a previous case and is spread, either directly or indirectly, through human intercourse.

4. That increased vital resistance renders persons immune only in tuberculosis and other exceptional instances.

5. That if virulent bacteria could be prevented from finding a lodgment in human tissue, they would, for want of nutritive pabulum, soon return to their primitive dormant state.

6. That isolation, quarantine and disinfection, under the direction of bacteriologists, are the only means by which we may hope to successfully prevent the spread of contagious diseases.

A NARROW ESCAPE FROM DEATH DURING CHLOROFORM NARCOSIS.

By Eugene Lee Crutchfield, M. D.,
Baltimore.

READ BEFORE THE BALTIMORE MEDICAL ASSOCIATION, OCTOBER 12, 1896.

On the 22d of September, 1896, I administered chloroform to J. S., aged 26 years, white, for my friend Dr. Alfred Whitehead, who operated for the cure of a fistula. Every precaution was taken to guard against the dangers of anesthesia from this drug. Whiskey, (℥ss.) was administered beforehand, and I charged my hypodermic syringe with nitro-glycerine (gr. $\frac{1}{100}$) so as to have it in readiness if it should be needed.

The operation was about half completed when the patient suddenly ceased to breathe, the pulse became imperceptible, and the eyes were set like those of a corpse. To all appearances he seemed dead, and both Dr. Whitehead and I feared that such was the case. I immediately injected the nitro-glycerine under the skin, and we got him off the table down on the floor, upon which Dr. Whitehead suspended him by his legs (thus employing Nélaton's method) while I resorted to Sylvester's plan of artificial respiration. We then called two strong men from the shop underneath to hold him up by his legs so that Dr. Whitehead could continue the alternate elevation of the arms and their compression against the sides of the thorax while I gave him two hypodermic injections of whiskey.

After he had been suspended a little while I noticed that a reddish tinge was supplanting the intense pallor of the face. This showed that the blood was gravitating to the head. By thus relieving the cerebral anemia produced by the chloroform the respiratory and cardiac centers were stimulated. This is the rationale of Nélaton's method. Almost immediately after we had commenced the employment of Sylvester's device for exciting respiratory movements we heard a faint gasp and a little later we perceived a flicker of the pulse. These welcome indications continued to become more and more favorable until we soon had the satisfaction of knowing that he was out of danger although he was still under the influence of the anesthetic. The operation was then finished without any more chloroform.

Dr. Whitehead, who has had a very extensive experience with chloroform in several large English hospitals, as surgeon in the service of the Peninsular and Oriental Steamship Co., and in private practice, says that this was the most narrow escape that he has ever witnessed. He has seen one death from chloroform. This was certainly the most serious case of the kind that I have ever seen.

In the Maryland Medical Journal of January 23, 1892, I published the report of a case in which the patient stopped breathing, but the pulse could be felt. He was restored by Nélaton's method. April 10, 1893, I gave chloroform to the mother of this patient while Dr. Thos. P. McCormick dilated a stricture of the urethra and examined the bladder. She, too, ceased to breathe but the pulse remained perceptible. She was resuscitated by Nélaton's method and compression of the chest. In these two cases possibly idiosyncrasy of an hereditary character was accountable for this phenomenon.

In a considerable experience in the administration of anesthetics I have had the breathing grow weak or the pulse to become feeble on several occasions, but never until September 22, 1896, did I have both to fail so completely. I am in a position to speak thus minutely since I keep a record of every time I give an anesthetic, in which are mentioned all the particulars of the case, with the name of the operator. But I keep account of only those cases in which I myself am the administrator. I have no record of those instances

(which are numerous) that I have witnessed, when others have given the anesthetic, nor of those cases in which I performed the operation, except a few when I both gave chloroform and operated without medical assistance. However, inasmuch as I have a good memory (as my friends tell me), I can confidenty assert that this is the most serious case of the kind that I have ever seen in my life.

The most important consideration in the management of cases of this nature is to retain your presence of mind. Whatever may happen, do not lose your head. Had either Dr. Whitehead or I become disconcerted on this occasion, precious time would have been lost and a life might have been sacrificed. Among the means at our disposal under such circumstances are Nélaton's and Sylvester's methods and the hypodermic use of such stimulants as whiskey, brandy, digitalis, strophanthus and nitro-glycerine.

The subcutaneous use of strychnia is especially serviceable to stimulate the respiratory centers. Electricity is an efficient therapeutic force, but in nine cases out of ten the anesthetizer will not have his battery with him when he most needs it, and then, too, it will require time to start it. A good plan is to have the hypodermic syringe already charged with digitaline (gr. $\frac{1}{100}$), nitroglycerine (gr. $\frac{1}{100}$), and strychnia sulphate (gr. $\frac{1}{60}$) in case of an emergency. This combination will stimulate both cardiac and respiratory centers. It will also produce an effect that is both prompt and lasting.

The hypodermic injection of morphia alone, or of morphia and atropia combined, given before the inhalation begins, has been recommended on the grounds that the chloroform or ether narcosis is rendered safer and more prolonged with a less quantity of the anesthetic, the danger of cardiac paralysis is diminished, and the subsequent nausea and depression are prevented. Once during the operation when the pulse became feeble I tried this plan with a most happy result.

Within the past four or five years dilatation of the rectum has been advocated when the breathing stops. I have had no experience with this mode of treatment. Above all things, however, remember that success depends upon promptness of action. Therefore, keep cool. Had Dr. Whitehead and I not done so, chloroform might have been blamed for another death, whereas the censure would properly have belonged to the medical attendants.

PUERPERAL NEURITIS.

Dr. George Köster relates in the *Lancet* the case of a woman aged twenty-five years, formerly always healthy, who fourteen days after a normal labor began to suffer from pain and weakness in the left arm. There was no preceding rise of temperature, but the upper arm soon wasted. There was tenderness on pressure over the radial and musculo-cutaneous nerves and some slight impairment of sensibility was noticed. There was the reaction of degeneration in the deltoid and biceps. The rest of the muscles were normal, but in the brachialis anticus, although at first the reaction was normal, after twelve weeks in that muscle also there were wasting and sluggish reaction. After eight months, in spite of daily treatment by massage, there was complete loss of reaction in the deltoid, biceps and brachialis anticus. There was at first a patch of anesthesia with a part at which there was hyperesthesia, but this in time cleared up completely; but over the lower part of the deltoid another patch developed with complete anesthesia and simultaneously with the development of this there was a cessation in the spontaneous pains and there was no longer tenderness on pressure. The writer regards the condition as the result of toxines arising in connection with the uterine condition after labor; but the case is unusual in the severity and permanence of the damage to the motor structures. Complete recovery, or at least much improvement, is the usual rule in such cases.

Correspondence.

HAGERSTOWN MEETING.

HAGERSTOWN, November 11, 1896.

Editor MARYLAND MEDICAL JOURNAL:

Dear Sir:—The semi-annual meeting of the Faculty is a thing of the past for this year, and a most successful meeting it was. The Baltimore members went up by train and the neighboring physicians came from all directions, some by train and some drove. West Virginia and Pennsylvania were represented as you may see by the names. Dr. Humrichouse was at the station and welcomed us most cordially and we went up to the Hamilton House. Many of the physicians threw open their houses to the visitors and the clubs received them also.

The proceedings I shall send you later, but I want to say now that never has a semi-annual meeting been so well attended. On Tuesday night there were between 100 and 125 present and there was always present a large and appreciative audience.

While most of the papers were by Baltimore physicians, the discussions were taken part in by all. We usually pay for our own banquet at these meetings, but the Washington County Medical Association, with the same liberality which it showed seven years ago, insisted on treating us as its guests and we gracefully acceded. The banquet was very elaborate and although there were no set speeches, many had an opportunity to make themselves heard. Messrs. Parke, Davis & Co. of Detroit, Fairchild Brothers & Foster of New York, F. Arnold & Son of Baltimore, and the Edison Company were all represented there.

Among the physicians noticed at the meeting were the following:

Baltimore — J. C. Hemmeter, George J. Preston, J. Whitridge Williams, J. M. Hundley, S. K. Merrick, George H. Rohé, J. Fussell Martenet, Samuel J. Fort, Jr., William Osler, Simon Flexner, William B. Canfield, J. M. T. Finney, Frank Martin, Randolph Winslow, J. E. Gichner, H. O. Reik, H. G. Prentiss, E. M. Schaeffer, W. F. A. Kemp, D. Z. Dunot, John Mackenzie, E. N. Brush, John S. Fulton, J. R. Abercrombie.

Hagerstown, Md. — E. A. Wareham, H. S. Herman, C. R. Scheller, E. M. Schindell, A. S. Mason, T. W. Simmons, J. W. Humrichouse, Richard Vealhoker, R. L. Edwards, N. B. Scott, J. McPherson Scott, W. B. Morrison, Clara S. Eirley, O. H. W. Ragan, H. K. Derr.

Clear Spring, Md. — A. Shank, J. P. Perry, Charles Mason.

Fair Play, Md.—V. M. Reichard.

Smithsburg, Md.—E. Tracey Bishop, J. M. Steck, C. L. G. Anderson.

Leitersburg, Md.—J. W. Wishard.

Ringgold, Md.—J. Protzman.

Boonsboro', Md.—S. S. Davis, J. M. Gaines.

Elkton, Md.—C. M. Ellis.

Emmitsburg, Md.—Robert L. Annan.

Williamsport, Md. — S. K. Snively, S. W. Richardson.

Middletown, Md.—E. L. Beckley.

Keedysville, Md. —W. M. Nihiser, Edward Lowman.

Thurmont, Md.—E. C. Kefauver.

Funkstown, Md.—C. Z. Wingard.

Lonaconing, Md.—J. D. Skilling.

Welsh Run, Pa.—H. B. Chritzman.

Chambersburg, Pa. — H. C. Devilbiss, R. W. Ramsey.

Mercersburg, Pa.—D. F. Unger.

Hanover, Pa.—A. C. Wentz.

Mason and Dixon, Pa. — D. C. R. Miller, Wm. Prentiss Miller.

Harper's Ferry, W. Va.—W. H. Gannon.

Charlestown, W. Va.—William Neill.

New York.—C. C. Fite.

STATE BOARD OF HEALTH.

BALTIMORE, November 13, 1896.

Editor MARYLAND MEDICAL JOURNAL:

Dear Sir:—I observe in the MARYLAND MEDICAL JOURNAL, of November 7, that you have fallen into an error in your editorial statement, in saying that "There has been up to the present time what may be perhaps called a lack of harmony throughout the State among

the general and local health officers, so that there was lack of coöperation."

Permit me to say that this statement is wholly apart from the facts, as is shown by the two biennial reports—the tenth and eleventh—covering four years, the most complete harmony and coöperation existed at all times. The only want of coöperation that existed, if that may be so called, was the failure of the physicians of the State, including the local health officers, to make reports of vital statistics, but that was not the result of any antagonism of feeling, but of the defect of the existing law relating to vital statistics and the inadequacy of the appropriation provided for the purpose.

It is now a source of both amusement and satisfaction to me to see the State Board of Health, after having forced me to resign, because I had failed to collect vital statistics of the State, comes frankly forward and admits its total inability to do so and seeks to divert the small appropriation made for that purpose to another use. I feel sure that you would not willingly allow an incorrect statement in your valuable journal to go uncorrected.

Very truly yours,
JAMES A. STEUART, M. D.
1611 John Street.

ADMINISTRATION OF ANESTHETICS.

BALTIMORE, November 14, 1896.

Editor MARYLAND MEDICAL JOURNAL:

Dear Sir:—Your editorial on the "Administration of Anesthetics" in today's issue is certainly opportune. In the whole range of medicine I know of no one subject of more importance. It is apparently so simple, but in reality quite complex. To give an anesthetic properly demands on the part of the administrator the exercise of the greatest care and the possession of entire presence of mind. He must see (when giving chloroform) that the patient gets sufficient atmospheric air and be careful (when administering ether) not to press the cone over the mouth and nose in such a way as to suffocate the patient. He must watch attentively the pulse, noticing its frequency, force and volume; the respirations, counting their number and observing their depth or shallowness; the complexion, as to whether pallor or cyanosis exists; and the position of the tongue, not allowing it to fall back over the glottis, in which case it will obstruct the breathing. Then, too, he must curb his curiosity, not looking at the operation, but giving his undivided attention to his own duty. Moreover, he must be ready to meet, without the slightest delay, any emergency that can possibly arise.

Taking all these facts into consideration, it is apparent to everyone that only physicians who are experienced in this line should be entrusted with the administration of an anesthetic and that students should have special instruction in this branch.

Yours very truly,
EUGENE LEE CRUTCHFIELD, M. D.
1232 E. Preston Street.

Medical Progress.

OCULAR MANIFESTATIONS OF EYE-STRAIN.—Ernest Clarke (London), discussing the various manifestations of eye-strain upon the eye itself, and their bearing upon treatment (*American Journal of the Medical Sciences*) states that blepharitis is invariably associated with an error of refraction; and that phlyctenular conjunctivitis has a marked association with ametropia, and the same is true of phlyctenular keratitis. In a large percentage of cases of scleritis he has found a marked error of refraction, and on correcting this with glasses the various remedies have worked like a charm. He believes the first and best treatment for recurrent iritis is correction of refractive errors. Eye-strain may cause an attack of glaucoma under favoring conditions, and there is a distinct association between astigmatism and cataract.

MARYLAND

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PUBLISHED WEEKLY.

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MARYLAND MEDICAL JOURNAL,
209 Park Ave., Baltimore, Md.

WASHINGTON OFFICE:
913 F Street, N. W.

BALTIMORE, NOVEMBER 21, 1896.

The Hagerstown Meeting.

IT is with great satisfaction that the success of the semi-annual meeting of the Medical and Chirurgical Faculty held at Hagerstown last week can be recorded. Through the energy of the president, secretary and committee of arrangements, programmes and letters were sent to physicians in the region around about Hagerstown and the consequence was that not only was Washington County well represented but Virginia and Pennsylvania contributed to the audiences.

The evening demonstration, that is of the pathology of typhoid fever and the Röntgen ray machine, were especially attractive. The visiting physicians, and particularly those from Baltimore and the eastern part of the State, felt as if they were very well treated, while the physicians of Washington County said that they were indebted to the visiting physicians for the success of the meeting.

Whatever may be said, it is true that seven years ago when the Faculty met at Hagerstown for the first time the physicians of that neighborhood were so filled with enthusiasm that the Washington County Medical Association was reorganized and has done good work, with an active membership of 35 members since that first meeting.

While the discussions were fairly lively there was still that feeling that the reader of the paper knew more about his subject than his listeners and hence a certain modesty in speaking. Still there was some discussion and it was a pleasure to see that everyone took so much interest.

Several applications for membership to the Faculty were made, and it is likely as a result of this meeting that many new members will be obtained.

The president called the attention of all physicians to the fact that the library and nurses' directory could now be used by physicians of the State as well as in Baltimore. A long distance telephone will connect with the nurses' directory any time of the day or night, where competent nurses of both sexes and colors may be obtained. Physicians who desire to study a subject may have books sent from the library, provided of course the physician is a member of the Faculty and pays transportation charges on the books both ways.

A physician of Baltimore who recently went to the Surgeon-General's Library in Washington to look up a subject for a paper reported that with very few exceptions all the authorities that he wished to consult could have been found in the State library, the Faculty library, at home if he had known it.

The library is a valuable one and is alone well worth the small dues.

* * *

Serum Diagnosis of Typhoid Fever.

ONE of the most important pieces of work demonstrated at the recent Hagerstown meeting of the Faculty was the very clear and well prepared address of Dr. Simon Flexner on typhoid fever. Since Widal's important communication, pathologists all over the world have been testing the effect of blood serum from a typhoid patient on pure cultures of the typhoid organism.

Wyatt Johnston of Montreal has already simplified this method so that health boards may assist physicians in making a diagnosis of typhoid fever with certainty within twenty-four to forty-eight hours.

Already the New York and Brooklyn Boards

of Health have adopted this new diagnostic method and along with the tubes and swabs for the diagnosis of diphtheria, glass slides are left for physicians who wish to put between them blood of suspected typhoid cases to be reported on by the laboratory physicians.

The possibilities of municipal diagnosing stations make one dizzy in this free country. If the municipality looks after nuisances, disinfects after a disease, destroys contagion, examines sputum, secretions from the pharynx in cases of suspected diphtheria, and now examines the blood in suspected typhoid fever, how long will it be before the municipality takes entire charge of a patient and salaries the physician? But to come back from this wild frenzy.

The diagnostic point in the serum examination of supposed typhoid cases rests on the fact that very early in the course of typhoid fever, indeed within a day or two, the blood contains an antitoxine which, when added to a pure bouillon or other culture of typhoid organisms and observed in a hanging drop under a high power, shows that the typhoid bacilli lose first their motility, then tend to cling together and finally become rapidly disintegrated.

This method is still in the stage of experiment, but from the work done by Widal, Johnston, Pfeiffer, as well as the corroborative work done within the past few weeks at the Johns Hopkins Hospital, together with the fact that some city health boards have already adopted it, give promise of a great gain in the endeavor to stamp out typhoid fever.

A disease that can be recognized and treated early gives a much better chance for recovery and may be kept from spreading.

* * *

Malaria in the Puerperium.

WHILE the new method of diagnosing typhoid fever attracted much attention at the Hagerstown meeting, none the less important should be the mention of the complication of gynecological operations and the puerperal period by genuine malarial fever which is only made certain by the blood examination.

Drs. John Whitridge Williams and J. Mason Hundley both reported cases in which supposed serious febrile complications after childbirth and a gynecological operation were found to be due to malaria and stopped by quinine. Such work shows the value of blood examination and should be recorded.

* * *

The Causation of Joint Rheumatism.

AMONG the diseases which seem on the eve of explanation in the light of the germ theory, none is more interesting to the practitioner than common rheumatism. The apparently proven variants of this disease in children, as set forth by Cheadle, are hardly less interesting than its possible association with several obscure and rebellious conditions in middle and advanced life.

Many efforts have been made to determine the exact nature of the poison and its point of entrance into the system by those who believe that it is a true infection. In the *Archives Générales de Médecine*, for August, there is an able essay upon the subject by Dr. Leredde, which deserves attention.

He shows that, although the disease agent has not been discovered, arthritic rheumatism presents the test-marks of the infections, namely: it begins frequently by sore throat; it has as complications (or rather symptoms) endopericarditis, albuminuria and pleurisy; its joint-liquid is rich in white corpuscles; it has leucocytosis and increase of blood-fibrin (like a pneumococcus infection); its fever is almost constant and even when without complications there exists a state of prostration as intense as in the severest ulcerations of the bowels.

Infections of the joints are in general persistent infections of the blood (before they attack the joints). This is evident in pus-infections, tubercular and syphilitic arthritic diseases. Apart from infection of the blood, similarity of structure would not explain the involvement of many distant joints. The focus of the infection of the blood-stream may be the marrow of the bones, the role of this tissue in infections being now suspected, as it is not infrequently like the spleen a nesting-place of infectious organisms. Or the focus of infection which causes the joint effusion may be nearer at hand in the tissues underlying the serous membrane, as in pleuritis and peritonitis. The frequent relapses and shiftings of symptoms could be explained by supposing repeated pourings of poison into the blood by saprophytic organisms.

Medical Items.

We are indebted to the Health Department of Baltimore for the following statement of cases and deaths reported for the week ending November 14, 1896.

Diseases.	Cases Reported	Deaths.
Smallpox		
Pneumonia		24
Phthisis Pulmonalis		20
Measles		
Whooping Cough	1	
Pseudo-membranous Croup and Diphtheria.	26	8
Mumps	3	
Scarlet fever	22	1
Varioloid		
Varicella	1	1
Typhoid fever	8	5

Most of the large hospitals of Baltimore have purchased the Edison X-ray machine.

The Richmond Board of Health is without money until the end of the year and the city's health and safety is menaced.

The recent report that Dr. Howard A. Kelly of the Johns Hopkins Hospital has been ordered a year's rest from all work is denied by that hospital.

Dr. Henry M. Patterson, a prominent physician of Staunton, Virginia, died at his home on November 9, aged 64. He was a graduate of the University of Virginia in 1851.

Dr. John Turner, a retired physician of Prince Fredericktown, Md., died at his home last week, aged 85 years. He was graduated from the University of Maryland in 1834.

The *Medical Record* states that a Vienna physician was upheld by the courts in refusing to pay a bill on the plea that the practice of medicine is a privileged profession and not a trade and that a physician's property cannot be seized for the payment of his debts.

The Association of German Naturalists and Medical Men which met at Frankfort, Germany, in September, will meet next year at Brunswick, with Professor Lang of Heidelberg as President and Professor Waldeyer of Berlin as Vice-President.

Dr. George H. Rohé, superintendent of the Second Insane Asylum at Springfield, has made a very satisfactory report of work done since July 6, 1896, when the first patients were admitted.

Dr. John S. Fulton, Secretary of the State Board of Health, has issued an important circular to the school teachers of Maryland warning them against diphtheria and giving them advice as to the prevention of contagion.

Dr. Thomas A. Councell, health officer of Talbot County, has been compelled to come out with a decided statement as to the existence of diphtheria in his county. The local papers and the citizens denied the existence of the disease and made other foolish statements.

The Southern Surgical and Gynecological Association at its recent meeting at Nashville elected the following officers: President, Dr. George Ben Johnson, Richmond, Va.; Vice-Presidents, Dr. F. M. McRae, Atlanta, and Dr. W. E. Parker, New Orleans; Chairman Committee of Arrangements, Dr. H. H. Mudd, St. Louis. The next meeting will be held in St. Louis.

The Washington County Medical Association has elected Dr. Abraham Shank of Clear Spring, President; Dr. H. S. Herman of Hagerstown and Dr. H. C. Foster of Clear Spring, Vice-Presidents; Dr. C. R. Scheller of Hagerstown, Treasurer; Dr. C. L. G. Anderson of Smithsburg, Recording Secretary; and Dr. C. D. Baker of Rohrersville, Corresponding Secretary.

The Section on Orthopedic Surgery, Dr. Newton M. Schaffer, Chairman, of the New York Academy of Medicine, met last night. Dr. James K. Young of Philadelphia read, by invitation, a paper on "The Treatment of Lateral Curvature by Light Gymnastic Movements." Among those who took part in the discussion were Drs. Augustus Thorndike, John Dane and E. H. Bradford, Boston; De Forrest Willard and H. Augustus Wilson, Philadelphia; Robert Tunstall Taylor, Baltimore; Wm. E. Wirt, Cleveland; L. A. Sayre, J. D. Bryant, V. P. Gibney, Jacob Teschner, H. L. Taylor, S. Ketch, T. H. Myers, W. R. Townsend, R. Whitman, L. W. Hubbard, H. W. Berg, R. H. Sayre and A. B. Judson. Dr. Schaffer gave a dinner to the visitors and members of the section at the University Club before the meeting. Dr. Robert Tunstall Taylor, who took part in the discussion, is Chief Surgeon of the Hospital for Crippled Children, of Baltimore.

Book Reviews.

A Manual of Clinical Diagnosis by Microscopical and Chemical Methods. For Students, Hospital Physicians and Practitioners. By Charles E. Simon, M. D., Late Assistant Resident Physician Johns Hopkins Hospital, Baltimore. In one very handsome octavo volume of 504 pages, with 132 engravings and 10 full-page colored plates. Cloth, $3.50. Lea Brothers & Co., Philadelphia and New York, 1896.

Nothing but praise can be given to such a fine work. It contains chapters on the blood, mouth secretions, gastric contents, feces, sputum, urine, etc. The best is that on the urine. Figure 3, Plate II, of the stained leucocytes is badly colored. Figure 2, Plate VII, of the pneumonia organism is very poor and diagrammatic. The author has no faith in physiological or cyclic albuminuria and thinks the presence of albumen always serious. Plate VIII, showing the layer test for albumen, is well done. He suggests putting the urine in a conical glass and then allowing the acid to escape from a pipette which has been carried to the bottom of the vessel. This is not easy to carry out. The author believes in physiological glycosuria. In describing the phenylhydrazin test, evidently translated from Jaksch, the expression, "two-points-of-a-knifeful," is too German; "two pinches" might be better. He does not give Heller's test for sugar. He does not believe that constipation also causes increased indicanuria, thus disagreeing with Jaksch, Ultzmann and others. Plate X, showing the diazo-reaction, is well executed. In examining the sediment the centrifugal is only casually mentioned. He advocates the microscopical examination of the sediment without a cover-glass and advises against using a high power. Figure 122, of the gonococcus, is overstained and not distinct. Without doubt, this is the best work of its kind in English, even excelling the translation of Jaksch, which it much resembles in places, and is a great credit to the author's hard study and rich experience. In his spelling he omits the final "al" in such words as "physiological," but still clings to the "æ" and "œ" diphthongs and the final "e" in such words as "ptomaine." On page 215 he spells "sanguineous," "sanguinous," and on page 412 "ptomaines" is spelt "ptoamins." Throughout the book "Pettenkofer" is written "Pettenkoffer."

Current Editorial Comment.

BICYCLES AND IMMORALITY.

Medical Record.

The question of the healthfulness of cycling, for men as well as for women, is one that still admits of discussion; but the man who can assert or even suggest that the thousands, perhaps millions, of women throughout the world, who ride the wheel, are giving themselves over to self-abuse, puts himself beyond the reach of argument.

THE PHYSICIAN'S PERSONALITY.

Medical Council.

It is too often the case that physicians rely entirely upon their scientific ability to bring them success in their practice. Experience demonstrates this to be quite a serious mistake. Much of his success, not only in attracting patients, but also in curing them, depends upon the physician as a man, aside from his scientific attainments.

MUSHROOM POISONING.

New York Medical Journal.

The frequency with which fatal cases of mushroom poisoning are reported at the time of the year mentioned, that of the early rains and the first mushrooms, shows how cautious one should be in the tentative consumption of fungi that grow wild in the meadows and woods; persons who imprudently trust themselves to select edible mushrooms, relying on their instinct in the absence of scientific information, expose themselves to terrible dangers.

THE MODERN NURSE.

Baltimore American.

A grave difficulty has arisen in the progress made in the experiment of trained nurses. The old Sairy Gamp's type has almost disappeared from the face of the earth, but in the gentle, refined and intelligent women now entering the profession, science finds one great drawback to its work. In a nurse this combination of qualities enhances her aid to science, but it is also wreaking havoc in the susceptible hearts of eligible patients. No sooner is a star of the hospital at the zenith of her usefulness, than all her glowing promise is blasted by the chill frost of matrimony. Love matches between patient and nurse are now so frequently reported that science is forced to realize with all its power it is helpless in the hands of the little blind boy.

Publishers' Department.

Convention Calendar.

NOVEMBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	..	..	..	..	..
..	..	..	..	..	..	..

DECEMBER						
S	M	T	W	T	F	S
..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	..	..
..	..	..	..	..	..	..

State Societies.

NOVEMBER.

27. NEW YORK STATE ASSOCIATION OF RAILWAY SURGEONS, at New York City. C. B. Henich, M. D., Secretary, Troy.

DECEMBER.

1. LYCOMING COUNTY (PA.), at Westport, Pa.
3. TRI-STATE, of Western Maryland, Western Pennsylvania and West Virginia, at Cumberland, Md.

National Societies.

NOVEMBER.

10. SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION, at Nashville. W. E. B. Davis, M. D., Secretary, Birmingham, Ala.

16-19. PAN-AMERICAN MEDICAL CONGRESS, at City of Mexico, Mexico.

DECEMBER.

30-31. WESTERN SURGICAL AND GYNECOLOGICAL ASSOCIATION. Herman E. Pearse, M. D., Secretary, Kansas City, Mo.

BALTIMORE.

BALTIMORE MEDICAL ASSOCIATION, 847 N. Eutaw St. Meets 2d and 4th Mondays of each month.

BOOK AND JOURNAL CLUB OF THE FACULTY. Meets 2d and 4th Wednesdays, 8 P. M.

CLINICAL SOCIETY, 847 N. Eutaw St. Meets 1st and 3d Fridays—October to June—8.30 P. M. S. K. MERRICK, M. D., President. H. O. REIK, M. D., Secretary.

GYNECOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE, 847 N. Eutaw St. Meets 2d Tuesday of each month—October to May (inclusive)—8.30 P. M. W. S. GARDNER, M. D., President. J. M. HUNDLEY, M. D., Secretary.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE, 847 N. Eutaw St. Meets 2d and 4th Thursdays of each month—October to June—8.30 P. M. W. S. GARDNER, M. D., President. CHAS. F. BLAKE, M. D., Corresponding Secretary.

MEDICAL JOURNAL CLUB. Every other Saturday, 8 P. M. 847 N. Eutaw St.

THE JOHNS HOPKINS HOSPITAL HISTORICAL CLUB. Meets 2d and 4th Mondays of each month at 8 P. M.

THE JOHNS HOPKINS HOSPITAL MEDICAL SOCIETY. Meets 1st and 3d Mondays, 8 P.M.

THE JOHNS HOPKINS HOSPITAL JOURNAL CLUB. Meets 2d Friday and 4th Monday, at 8.15 P. M.

MEDICAL SOCIETY OF WOMAN'S MEDICAL COLLEGE. SUE RADCLIFF, M. D., President. LOUISE ERICH, M. D., Corresponding Secretary. Meets 1st Tuesday in the Month.

UNIVERSITY OF MARYLAND MEDICAL SOCIETY. Meets 3d Tuesday in each month. 8.30 P. M. HIRAM WOODS, JR., M. D., President, dent. E. E. GIBBONS, M. D., Secretary.

WASHINGTON.

CLINICO-PATHOLOGICAL SOCIETY. Meets at members' houses, 1st and 3d Tuesdays in each month. HENRY B. DEALE, M. D., President. R. M. ELLYSON, M. D., Corresponding Secretary. R. H. HOLDEN, M. D., Recording Secretary.

MEDICAL AND SURGICAL SOCIETY OF THE DISTRICT OF COLUMBIA. Meets 2d Monday each month at members' offices. FRANCIS B. BISHOP, M. D., President. LLEWELLYN ELIOT, M. D., Secretary and Treasurer.

MEDICAL ASSOCIATION OF THE DISTRICT OF COLUMBIA. Meets Georgetown University Law Building 1st Tuesday in April and October. W. P. CARR, M. D., President. J. R. WELLINGTON, M. D., Secretary.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA. Meets Wednesday, 8 P. M. Georgetown University Law Building. S. C. BUSEY, M. D., President. S. S. ADAMS, M. D., Recording Secretary.

WOMAN'S CLINIC. Meets at 1833 14th Street, N. W., bi-monthly. 1st Saturday Evenings. MRS. M. H. ANDERSON, 1st Vice-President. MRS. MARY F. CASE, Secretary.

WASHINGTON OBSTETRICAL AND GYNECOLOGICAL SOCIETY. Meets 1st and 3d Fridays of each month at members' offices. GEORGE BYRD HARRISON, M. D., President. W. S. BOWEN, M. D., Corresponding Secretary.

PHARMACEUTICAL.

SENG, through its secernent action, encourages the flow of nature's own pepsin when taken into the stomach, and thus does not dissolve the food *per se*. The physiological difference between the pepsin and Seng treatment is that the former is an artificial treatment, and a makeshift at best, whilst the latter is a restorer of the natural functions of digestion.

INFLAMMATORY DIARRHEA.—In the insidious beginning of the disorder, when large, pasty stools are being passed, the child, if an infant, should be fed with weak veal broth and barley water in equal proportions; whey with cream; the yolk of one egg beaten up with broth or whey, and Mellin's Food mixed with whey or barley water. The meals should be frequently varied during the day and the quantity allowed must be strictly proportioned to the infant's powers of digestion. For medicine he may take a powder of rhubarb (gr. ij-iij) and aromatic chalk (gr. iij-v) every night for three nights; and in the day, a mixture composed of half a drop of laudanum with four or five grains of the bicarbonate of soda in some aromatic water.—From "Disease in Children," EUSTACE SMITH, M. D.

PHARMACEUTICAL.

SPECIAL OFFER TO PHYSICIANS.

We have been authorized to state that to any physician who has not as yet made a trial of "Gray's Glycerine Tonic Comp," formula Dr. John P. Gray, that a full pint bottle will be forwarded by the proprietors, express prepaid, on receipt of thirty-five cents in stamps to defray transportation expenses. This compound is a combination of glycerine, sherry wine, gentian, taraxacum, phosphoric acid and carminatives, and has received the highest encomiums from physicians who have tested its merits. Address The Purdue Frederick Co., sole proprietors, 52 West Broadway, New York, mentioning this JOURNAL.

PURE AIR.—Diphtheria prevails in winter when tightly closed doors and windows render thorough ventilation impossible. Regular disinfection of waste pipes, closets, sinks and cellars with Platt's Chlorides will maintain pure air in the home and ensure immunity from many contagious diseases.

LITHIA TABLETS.—Lithia prescribed *definitely* is, as we have said, one of the foremost remedies of its kind, but its administration otherwise cannot be too vigorously condemned. Another salient feature of the Lithia Tablet is the convenience of administration, avoiding the "bulkiness" which is connected with lithia waters. The cost is less, no doubt due to the fact that the transportation charges of the tablet are fractional compared with that of cases of bottled water; you also avoid the cost of unnecessary and useless containers, cost of bottling, etc. A bottle with a base about one and one-half inches square and three inches high, containing lithia water tablets, easily carried in the pocket, constitutes the equivalent of two and one-half gallons of definite lithia water as prepared by Wm. R. Warner & Co.—*Monthly Retrospect.*

CHOLERA INFANTUM.—First, control the irritation, and second, remove the cause. To control vomiting, one-eighth grain tablet of calomel every hour until four are taken. Follow with teaspoonful doses of castor oil, or pure olive oil, in which is mixed three to five drops of Battle & Co.'s Bromidia, every two hours, until it operates on the bowels, and be sure that it *does operate, too*. Then give every two or three hours from one-half to a teaspoonful, according to age and emergency, of the following:

℞.—Aquæ Calcis . . . 1 oz.
Misturæ Cretæ . . 1 oz.
Syrup Acaciæ . . . 1 oz.
Bromidia . . . . ½ oz.
Bismuth Subnit. . . 1½ dr.
M. Sig. Shake well before using.

Repeat the oil every morning *till it operates*, and follow it as before. If the Bromidia in this formula is not sufficient to insure quiet and sleep, I give enough of it in addition till it does, always properly diluted. In extreme bad cases, with "brain symptoms," I depend entirely on Bromidia, and it has never failed me. I have given it in half teaspoonful doses every hour till the desired effect, with no unpleasant results. Observe proper rules of feeding and bathing and the little patient is usually all right in a few days. Since I have adopted and followed this course, now about about twenty-five years, I have not lost a case of cholera infantum or summer diarrhea.—J. M. DUNCAN, M. D., in *Medical Brief.*

IN post-partum hemorrhage no other remedy gives as prompt results as ergot, but it must be given hypodermically. While the fluid extract can be used in this manner in cases of emergency, the frequency of the occurrence of abscess makes it a most undesirable preparation to use. Ergotin is prone to deliquescence and deterioration. At best it only represents a part of ergot and in no sense of the word produces the full physiological action of the drug itself. What is wanted is a bland, yet very concentrated, solution of *all* of the active principles of ergot grouped in their natural relation as found in the best specimens of Spanish ergot, but as there is an amount of inert, gummy and fatty matter in the crude drug which must prove irritating when injected under the skin, these substances should be carefully eliminated, due care being taken not to disturb the integrity of the active principles themselves. This has already been accomplished by our old conservative friends, Sharp & Dohme. Their Ergotole is without doubt a peerless product of ergot for hypodermic use. Free samples can be obtained from their laboratories in this city.

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It never nauseates

when given by the mouth.

Dose: 5 to 30 minims.

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(See Letter Below.)

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FRELIGH'S TONIC.

FORMULA:

Ten minims of the Tonic contain the equivalents (according to the formulæ of the U. S. P. and Dispensatory) of

Tinct.	Nux Strychnos	1 minim.
"	Ignatia Amara	1 "
"	Cinchona	4 "
"	Matricaria	1 "
"	Gentian	½ "
"	Columbo	½ "
"	Phosphorus, C. P	1-300 grain.
Aromatics		2 minims.

Dose: 5 to 10 drops, in half wine glass of water.

INDICATIONS.

Neurasthenia, Sick and Nervous Headache, Nervous Dyspepsia, Indigestion, Paralysis, Locomotor-Ataxia, Impotence, Loss of Vital Fluids (through excesses or otherwise), Debility of old Age, Mental Strain and Over-work, and in the Treatment of Mental and Nervous Diseases.

One of the oldest and best known of the Washington physicians writes as follows:

"I have used your Celebro-Spinant, Freligh's Tonic, since its first introduction all of ten years. When I prescribe it there is nothing more to trouble me, as I am certain of results. For a while back, though, I did not obtain the usual results. At first I was inclined to think you were letting it fall from its high standard, but wishing to use it in my own family lately, I sent to you direct for a bottle. It is sufficient to say that I think you have even *Advanced* the standard. The fault before was the growing evil of substitution. As every bottle of the Tonic bears the formula upon it, and conforms fully to the requirements of the Code, I now invariably write "*Original Bottle*" upon every ℞ for it, and call the attention of the patient also to it. I know your difficulty in obtaining evidence of substitution sufficient to convict the offender, but if in your advertisements you will **urge the profession** to stipulate "Original Bottle" on the ℞, it will benefit all of us, and help to prevent the evil. We must do this with articles as valuable as your Cerebro-Spinant, which is a *sine qua non* with me in the treatment of certain cases, or we must take a long step backward, and do our own dispensing once more. I, for one, feel too old to undertake it."

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